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SUGGESTIONS ABOUT SUPPLIERS EVALUATION AND
SELECTION PROCESS
IN MINGSUI

Degree Programme in International Business
and Marketing Logistics
2013

TITLE OF THE THESIS

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Degree Programme in International Business and Marketing Logistic.

November.2013

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Number of pages: 36

Appendices: 1

Keywords: supplier evaluation and selection process, evaluation criteria, matrix

The purpose of this thesis was to figure out the areas needed to improve supplier's evaluation and selection process in case company which was based on theoretical knowledge and practical research. Then, the author gave suggestions for case company according to survey analysis. The matrix form could be used as a sample to evaluate its suppliers comprehensively. As the survey of case company, it aimed to understand how the company considered about their suppliers, how evaluated and selected them, what the company expected for suppliers performance. The finding of interview was analyzed and applied in the final recommendations of the thesis. The theoretical part was composed three main areas: First, the author stated the vital role of supplier in a company. Second, theoretical knowledge of supplier evaluation and selection process was introduced for case company. Last, key criteria were highlighted to evaluate supplier. The empirical part included three main areas as well: First, stated the current situation of case company. Then, gave suggestions associated with theoretical knowledge and company situations. Finally, the author made out a matrix form as a sample to assess suppliers and reported recommendations to case company. The outcome of the thesis was expected to be useful for the company, which was focused on the improvement of supplier evaluation and selection process. However, the assessment criteria of supplier were variable. It could be changed depending on different situations of procurement plans and products requirements in the future.

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1 INTRODUCTION

As the business is becoming more and more competitive, supply chain management is recognized by managers as a significant driver for success business. Purchasing activities contributes not only in the bottom level but also top level for a company. Since today most companies spend more on purchasing activities and service, efficient and constructive relationship with suppliers is the critical topic to company short term financial position and long term competitive power. (Weele 2010, 3.)

The business competition among suppliers of enterprise has become increasingly fierce nowadays. Obviously, supplier plays a significant role in any enterprise. Many crucial elements of successful business need supplier's support, for instance, appropriate delivery time, material quality, or stock service. Additionally, price and quality of purchased product influences the outcome of finished products of company. It is impossible to strengthen competitive capacity in the intense competition without appropriate suppliers' support. (Cox, Lonsdale & Sanderson, 2011, 45.)

MingSui Trade Co., Ltd is the case company that located in Fujian province of China. Its main business is to sell grain for domestic flour and feed mills. Mingsui is a small and young company which expect to be introduced more comprehensive and theoretical knowledge of choosing reliable suppliers for further company's development. At present, current suppliers are introduced by experienced purchasers and business relationship in Mingsui. Considering about that, a more comprehensive process to select appropriate suppliers is necessary.

2 PURPOSE AND OBJECTIVES

2.1 Purpose

Suppliers are not only the ones who meet the requirements of raw material of buyers, but they also support buyers' company development in future. There are two main supplier groups in MingSui Company, the domestic grain suppliers and wheat factories from America. Most suppliers were selected owing to business partner's introducing and previous experience of purchasing manager. With regard to Mingsui's need, the thesis aims at introducing supplier evaluation and selection process, figure out the key criteria to assess suppliers and give suggestions according to Mingsui's current situation.

2.2 Objective

Three objectives of thesis are defined as follows: firstly, state theoretical knowledge of importance of suppliers' role in business, evaluation and selection process, key issues to assess suppliers for Mingsui. Secondly, according to Mingsui situation, find out the potential problems and concerned criteria of evaluation suppliers, and then integrate the theoretical knowledge to the real case. Thirdly, give Mingsui suggestions of improving the way of supplier evaluation and selection process. The objectives are listed as follows:

1. How is supplier evaluation and selection process in theoretical knowledge?
2. How does Mingsui evaluate and select supplier?
3. What are the areas needed improvement or considered by linking with theoretical knowledge and current situation?

2.3 Conceptual framework

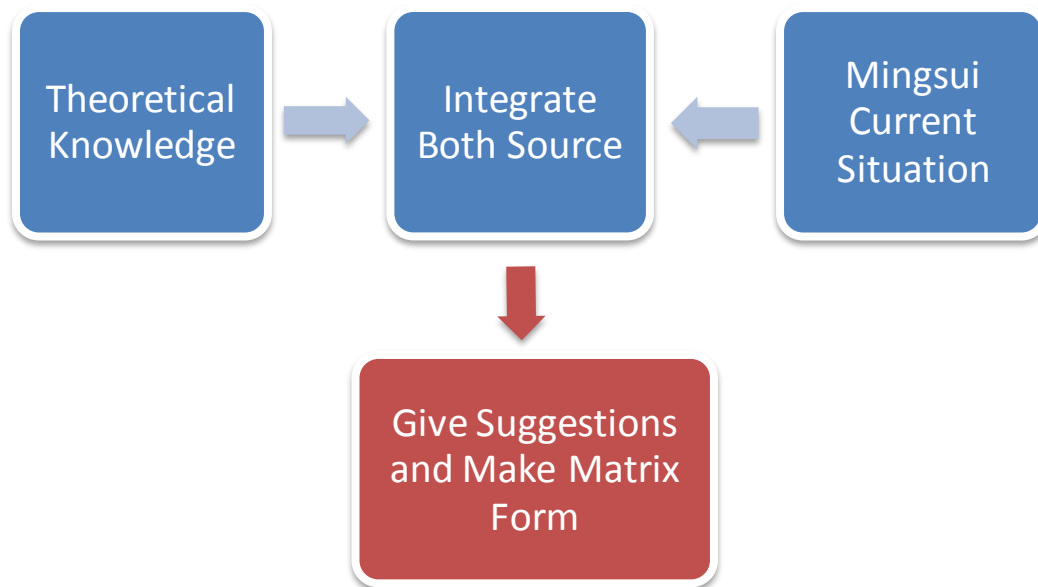


Figure 1. Conceptual framework

The conceptual framework shows the process of the study. The contents in red box is the outcome of the thesis: giving suggestions and making matrix form for Mingsui . The outcome is based on the theoretical knowledge and Mingsui current situation. By integrating both research results to find the areas that could be improved.

The most important criteria of evaluation suppliers in Mingsui will be asked by survey. Then, through that information, give suggestions and make new evaluation form for Minsui to improve its supplier evaluation and selection process.

2.4 Research Method

For the thesis, the data will be collected by two types: primary data and secondary data. Primary data means the information collected originally by researcher though survey, interview. Researcher use primary data normally aiming to a specific purpose of study, and it is the first time to apply. Secondary data is readily available to obtain, which has been collected by others, includes books, journals, statistics figures or professional articles from internet.

The data of the thesis will be comprised of books, internet resource (secondary data) and survey, interview information from Mingsui (Primary data). The theoretical data will aim to state the necessity of evaluation and selection supplier and how the process would be. From the data of interview, current situation of case company will be recorded according to questions in survey. The matrix form will be combined both primary data and secondary data, which will be as one outcome of this study. (Cohen, Manion & Morrison 2007, 193-194.)

There will be two methods in the thesis to acquire data: questionnaires and semi-structured interview, and they are the most suitable methods for the thesis. Questionnaire method is quite popular. A questionnaire will send to Mingsui in order to get their answer. The purpose of the questionnaire is to understand the information of supplier evaluation and selection process as well as the prefer criteria in Mingsui. Semi-structured interview method is flexible. According to what the interviewee answer, it allows asking new questions without in survey during interview. When using semi-structured interviews with suppliers, framework of topic should be prepared in advance. (Saunders, Levis and Thornhill 2003, 247.)

3 EVALUATION AND SELECTION SUPPLIER

3.1 Suppliers in value chain

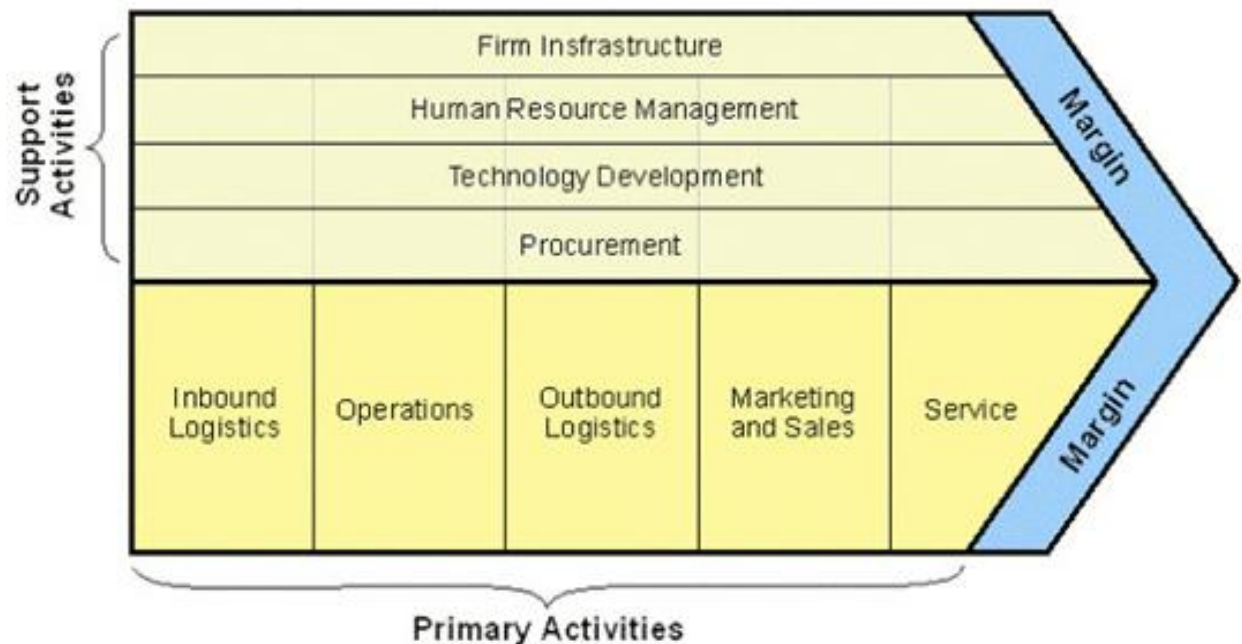


Figure 2 Value chain of Michael Porter (1985)

Procurement is a functional group or activity in a company which should optimize cost from reliable suppliers and ensure maximum value to company through various responsibilities. These include identification and selection suppliers, purchasing, negotiation, signing contracts, investigating supply market, evaluating suppliers, procurement system development and so on.

The value chain of Michael Porter (Figure 2), it is combined with value activities and margin. Value activities includes primary activities and support activities. Primary activities target to physical transformation and handling of the final products, which the company delivers to its customers. As the picture shows, the activities consist of inbound logistics, operations, outbound logistics, marketing and sales and service.

Support activities enable and assist primary activities. They can support one of primary activities as well as the whole primary process. These include procurement, technology development, human resources management and facilities management.

The model tells us that the value chain of company consists by the two groups activities, if the whole chain is arranged in a reasonable operation, those activities can create strong competitive advantage for company. All the value activities need to be performed in such way in order to generate total value for the company, as its customer perceived, is more than sum of cost. (Weele 2010, 4-5.)

From the value chain, supplier is the head of those activities. Procurement as one support activity which means procurement department need to provide service to internal customers. Procurement department is the important intermediary of contact with suppliers, which can support all demand of material and service to internal customers. Thus, it requires purchasers to source suppliers who are capable to generate advantage for company. (Moncka,R., Trent,R., Handfied,R. 2008, 7-8.)

Moreover, all purchasers have recognized the importance of how suppliers affect total cost of a company. Supplier is the critical part of supply chain. Supply capability of supplier can make difference of the final product and service of manufacturers. Each 1 dollar benefit of a manufacturer will spend 55 cents to purchase products and service. It is obviously that evaluation and selection of supplier is most important area so that procurement is able to realize reducing cost for company. (Moncka,R., Trent,R., Handfied,R. 2008, 24.)

3.2 Supplier in supply management

Supplier management is through controlling information, material and capital flow to link with the enterprise development. And the supplier selection is an essential part of it. Establishing an effective management of supplier is helpful to increasing efficiency and reducing risks in procurement activities. In particular, supplier was been regarded as a strategic asset to enhance competitive capacity of enterprise in market. The one who obtains a powerful supplier as backup, gains the competitive advantage in business. (Chopra 2009,42.)

Strengthening the management can shorten the delivery period, improve the product

quality, reduce cost, and promote the ability to survive in emergency in business. Besides, setting up a scientific supplier management system needs to continue evaluation supplier's performance and updates network. It is an indicator that tells what supplier should to be out because of less efficiency. The trend of business environment tell us as well, to set a competitive position in business, need to cooperate with appropriate suppliers well to gain good support from them. Apparently, selecting suppliers is the important part of supplier management. (Website of Paper.Edu. 2012), (Website of TPBG.2012)

Business competition will not only exist among companies, but also happens in supplier chains. It requires the necessity of finding good suppliers and establishing good relationship. Information share and active collaboration with suppliers is a good sign of mutual trust in business. The trust in business to business basically to be resulted of two factor: trustworthiness, such as in what situation, the other parties grant to you their trust and competence. Building competence is about to developing people's skills, experience and creativity. To have a skilled labour is necessary but not sufficient. Building trust in business-to-business relationship needs to have strict ethical principles and procedures. Trust can only generate if a staff act in a consistent and reliable way, whether keeping promise or not. (Weele 2010,394.)

3.3 Process of supplier evaluation and selection



Figure 3. Supplier evaluation and selection process, Modified by Moncka,R., Trent,R., Handfied,R

3.3.1 Recognize the necessary of selection suppliers

The objective of evaluation and selection supplier is to reduce procurement risk and maximum benefit of buyer organization. The company must select a supplier who can cooperate with in longer duration. The first step of the process is to understand demand of material or service in company. Purchaser may well start to operate the process based on forecast of future procurement activities. Besides, supports enterprise strategy plan through attendance, for example, D&R group meeting in enterprise, production department may provide some preliminary information of development plan for new product, such as specification of raw material, requirement of service or operation. Normally, that information is sufficient for purchaser to target potential supply

market preliminarily. There are various ways to recognize the necessity of assessment suppliers. The below table illustrates the necessity of assessment supply source in several situations. (Moncka,R., Trent,R., Handfied,R. 2008,145-146.)

Timing of making decision to evaluate and select supplier

When new product design and development starts
When internal or external suppliers performance weak
When contract ends
When procures new equipment or technology
When extends new market or new product line
When internal customer propose requirement of product and service
When testing market
When occurs off-set trade requirement
When analysis outsourcing
When current suppliers are not capable
When supplier database shrink sharp
When conducts reverse auction

3.3.2 Identify key purchasing requirement

Understanding and identifying requirements is critical and it is important to procurement as well. Those requirements normally are determined by the internal and external customer in value chain. Requirements are variable in different products or service. However, there are several specified requirements that are included in every case: quality, cost and delivery performance. (Website of Purise, 2012)

3.3.3 Determine purchasing strategy

There is no independent purchasing strategy that can meet all procurement requirements. Enterprise can choose different purchasing strategy to different products and

services. The following lists several decisions that procurement department must make during working on. (Moncka,R., Trent,R., Handfied,R. 2008,146.)

- Single or multiple supply sources
- Short-time or long-time purchasing contract
- Supplier providing design service or not
- Support overall service or not
- Domestic supplier or global supplier
- Establishing close relationship or not

3.3.4 Identify potential supply sources

Purchasers start to search information source diversely after indentify potential supply source. Nevertheless, the effort spending on selection supplier is according to the importance level of product or service purchased. The reason is the process may consume a lot resource, such as time and money. The below table is a standard indicated how much strength that enterprise needs to take effort on searching supply information. It is based on the importance of product and service demand of enterprise. It is decided by two aspects: situation of current supply market and demand of strategy importance.

Current supply capacity	Importance of demand	Effort on searching
High	High	Low to medium
High	Low	Low
Low	High	High
Low	Low	Low to medium

Figure 4 Standard of effort spending on supplier research, Modified by Moncka,R., Trent,R., Handfied,R

Then following statements different source of supply information, which is very useful to find and identify potential supply source.

Professional website and trading platform

Professional website collects domestic and international supply information, such as Alibaba, Conghui. The supply information can be found fast when input the demand material name in searching dialog box. Generally, the regular product can be selected in local supply market. However, special and scarce products need to source globally, as it is critical material for company, it worth to spend more resource. (Website of CNW. 2012)

Exhibitions

There are many special exhibitions, such as Interactional agriculture and food fair, China Fancy Food Expo, agriculture exhibition hold by local companies, and comprehensive exhibition, for example China Hi-Tech Fair, Canton Fair. These provide physical platforms to contact more suppliers domestically and internationally. The purchasers can attend relevant events to collect suppliers and products information, samples and communicate with potential suppliers by face to face. Besides, these events provide the buyer opportunities to compare similar products from different sources. (Bialy, Farmer, Crocker, Jessop&Jones 2008, 205.)

Salesman

The situation of door-to-door salesman is pervasive today. It requests salesman take all necessary information of product, such as description, brochure and representative sample. In this way, purchaser can keep prime information to gather appropriate information to supplier database. If needed, purchaser would start to inquiry and preliminary investigate. (Zhou.Q 2010, 56.) (Website of Purise. 2012)

Business journal

Most industries have an organization to publish specialist trade presses which contain lots information about activities of companies. These publications post different enterprise's articles. Normally focus on main products and services, production plan, manufacturing flow, or creative development of different companies. Those companies utilize those publications to make advertise for themselves as well. (Liu 2011,89.)

Data base

Purchasing department preserves supplier's data that have been assessed and approved. The suppliers recorded are able to support companies' running health. Such as NCR, this company keeps about 30000 suppliers' data that are able to serve for NCR with good performance. Most of the information was searched from business journal and finance newspaper. The use of data base helps buyer organization to identify eligible suppliers quickly in order to meet its purchase demand. This approach needs enterprise take time and experience accumulation but if purchaser would continue to collect and update supplier information, it would contribute to target potential supplier immediately in future. (Zhou, Y 2009, 49.)

At the same time, the technology develops rapidly, keeping data of suppliers is crucial. The data includes existing product information, future development plans, design, production capability and past performance. However, potential supplier data can be outsourced as well. It depends on what the strategy plan of the company its own. (Liu 2011,89.)

Experienced purchaser

Purchasers who have been working in several years have a wealth of experience about suppliers. Contact details of supplier from them contain original and current suppliers' information as well as the other potential suppliers' information from diverse channels. The source is full of intellectual because the information is generated from thoughtful investigation and consideration by those experience purchasers. (Zhou 2010, 51.)

A skilled purchaser can figure out a preliminary evaluation for a new supplier fast since professional work experience over years. Besides, they are familiar of supply market already, domestic and abroad. (Moncka,R., Trent,R., Handfied,R. 2008.148.)

Current supplier

The current supplier is much more familiar with the buyer's demand than new suppliers. However, they also know much more deep information about its competitors in same industry. Thus, it is possible that current supplier would provide other potential suppliers information if they cannot meet the buyer's demand in certain case. For ex-

ample, if A current supplier cannot provide 300 tons soybeans within one week because it can only supply 180 tons to buyer for some reasons. But A current supplier do not want to lose the customer and the order, supplier A could contact another soybeans supplier B or C, to supply the rest 120 tons soybeans. However, both of them must be reliable to meet requirements of buyer as well. Otherwise, it will influence the reputation of current supplier A. (Zhou,Y 2009, 59.)

3.3.5 Limit suppliers in list

After completing collection of supplier information, there would be sufficient suppliers information is available to choose. Thus, buying company has to confine the number of suppliers to avoid investigating all of them because supplier assessment in deep must generate cost: money, time and labour. Therefore, to narrow the number of suppliers is necessary.

Besides, it is also achievable that buying company can utilize a larger number of staffs in supplier plant after establishing stable relationship. It can realize by mutual investment and trust with the appropriate suppliers. (Moncka.R Trent.R, Handfied.R. 2008,148.)

Purchaser needs to do preliminary evaluation of suppliers to reduce the number of them. And the qualified suppliers in the list are going to be verified in the next step. When shorten the list, the following standard can be used:

Financial risk analysis

Most purchasers may make a rough financial analysis for their potential suppliers. Financial issue is not the sole criterion, but it really reflects some risks if supplier's economic situation is deficient seriously even bankruptcy.

In china, if companies are registered in industrial and commercial bureau, they have to submit annual financial reports to the local authority. The report is summarized financial situation of the company and needs to contain necessary financial sheets. Thus purchaser can require supplier to provide relevant document to prove it health finan-

cial situation. And the information can be acquired from financial website as well. Most professional financial websites upgrade the information every day, especially if the company is listed.

Buyer prefers their suppliers with reasonable profit because it means the supplier is capable to continue operation its business so that delivery product and service on time. Supplier with serious cash-flow problem affects directly its ability of paying bill and obtaining new material. Then its delivery time and possible product quality could be suffered. Thus, it is important point of evaluation supplier. Financial control needs a good management of the company. Well-management supplier can improve method, reduce cost, create new product, delivery product on time even build high morale in their workforce. (Bialy, Farmer, Crocker, Jessop&Jones.2008.206.)

Supplier's performance

The performance of current suppliers normally is maintained by purchasing department, which is recorded by actual experience. Typically suppliers would be investigated by what products and services they provide and what capability they possess. There are several common elements that are factored into vendor rating according to experiences, which are quality, timeliness of delivery and cost, even whether or not those suppliers reach the market average standards in the industry. (Tang 2010, 122.)

Potential supplier usually can be evaluated by their comprehensive capabilities. Normally the main issues contain quality, supply capacity promised, timing service and price. The extant of investigation potential supplier can be distinguished by volume and value of the purchasing products. The consequence of wrong choice is expensive so that it is necessary to investigate carefully. (Website of Purise. 2012)

It is worth to mention that the service suppliers provided could be value-add activities for buying organization. Service can be divided into before-sale service and after-sale service. For example, reliable delivery time, technical advice and service, stock service, availability of test facilities, package design, which content is variable. Good service from supplier can reduce buyer's workload, uncertainty of making buying decision, control production operation efficiently, and increase availability of products of buyer organization. (Bialy, Farmer, Crocker, Jessop&Jones.2008,205.)

It is possible that if buyer need make supply research, and there are some suppliers who cooperated with the buyer organization in the past, based on the history experience, purchase can consider more about them who performance well. Beside, purchaser can through reading supplier's customer feedback posted on the internet to acquire information about supplier current performance. As mentioned above, from trade platform, business journal also can give purchaser useful information of supplier performance.

Information provided from suppliers

Purchaser normally needs detail information from potential suppliers. It includes submitting preliminary questionnaire, then sifts them through feedback and makes decision whether their capability can meet requirements. Purchaser can require relevant information from supplier, such as cost structure, process technology, market share, or quality assurance. Before deeper investigation, the suppliers need to have eligibility to meet enterprise requirements. Supplier evaluation costs time and money, thus it make necessary to limit the number of suppliers. (Moncka,R., Trent,R., Handfied,R. 2008,147.)

3.3.6 Confirm the methods of supplier evaluation

After kicking out several incompetent suppliers, purchaser has to decide how to evaluate the rest comparative qualified suppliers, which requires specific investigation. A large number of methods can be applied into evaluating and selecting the rest, for example assessment supplier information, field visit and business directory. (Moncka,R., Trent,R., Handfied,R. 2008,149.)

Today, purchaser often tends to get detailed information of potential supplier directly. Information can be gained from questionnaires, surveys (*request of quotes: RFQs*) which send by buyer. Recent years, many manufactories start to require potential suppliers to provide their cost breakdown in RFQs, contained details of labour, material, administrative expense and profit information etc. It helps purchaser to understand the structure of price. Purchasers and suppliers can discuss and adjust the price if there are unreasonable factors behind. The situation usually occurs when the current suppli-

ers cannot meet the demand of buyer organization so that the purchaser needs to find new suppliers. (Website CNKI.2012)

Audit team of field trip can be formed with different department staff, there is advantage that everyone would have individual view from his or her own experience and knowledge in their professional field, for example, some audit could be an expert to investigate quality or some can verify suppliers manufacture capacity fast. This method is adopted often in big companies who have sufficient resource to apply. (Website of EsmChina.2012)

There are increasing numbers of enterprises that they tend to list their excellent suppliers into *preferred supplier directory (First-choice supplier)*. Those suppliers can provide satisfactory products and services continuously with good performance to buyer's enterprise. It is also a stimulator to other suppliers to improve their performance in the future. The method can simplify the process and save cost to evaluate and select supplier. (Moncka,R., Trent,R., Handfied,R. 2008,149-150.)

A good supplier is able to meet the strict requirements of buying company. Purchaser can consider whether or not there exist eligible suppliers in company through procurement data. It can avoid spending much more time and money to sourcing supply market. Besides, there are many publications and softwares of business directory which can be utilized to search suppliers. They normally renew annually. However, many commercial companies are professional on searching and analyzing enterprises information in every industry (*The third party*). Therefore, purchaser can buy or counsel necessary information from there. (Website of ESMCHINA.2012)

3.3.7 Select supplier and make agreement

The last step is making decision to select suppliers and signing contract. This activity is determined mainly by product and service purchased. For common material, purchaser only needs to simply inform and send purchase order to supplier. By compared, as for key material, process of the activity would be more complex. Buyer and sup-

plier have to negotiate clearly to reach some specific detail consensus in agreement. (Moncka,R., Trent,R., Handfied,R. 2008. 150.)

4 EVALUATE CRITERIA

4.1 Price

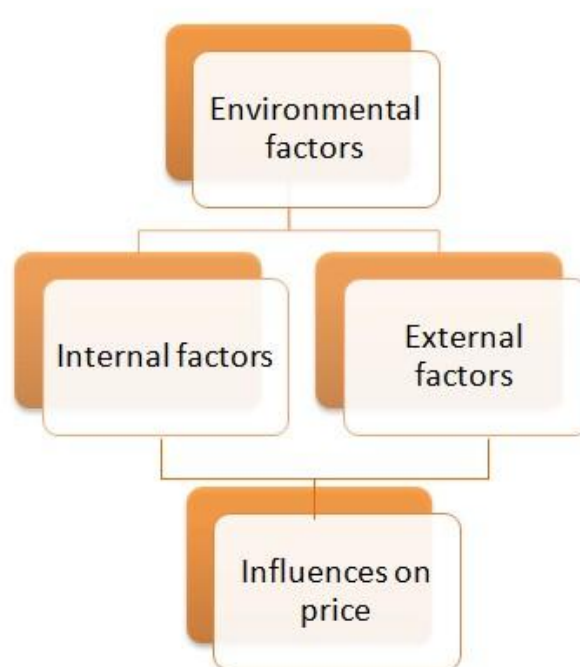


Figure 4 Influences factors on purchasing price, modified by Arjan J. van Weele

From the figure 4, material price basically is ultimately affected from two environmental factors: internal and external. Internal factors can result a change material cost before the finished product sale into market. The factors could be logistics, products characteristic, organization management or technical level, such as delivery time, quality, high-technology development, or pricing strategy. External factors can affect the availability of material provided into market by short or long term. The reasons contain economic, political, technique development, for example the inflation, changes in demand and supply relationship, legislation, or natural hazard. External factor in

general affect internal factor, however the reverse never occurs. Moreover, price of material can be influenced by external factors in two ways: direct change in cost structure of a product, indirect market structure change and supply and demand relationship shifts. (Weele, 2010, 346-347.)

Basically, price setting is from three models: cost-based pricing, market-based pricing and competitive bidding. Price of supplier's offering can be comprised with its all cost including cost of sales plus its profit margin. Perhaps, the price determined by the market circumstances exclusively, such as change in demand, supply, economic or social awareness, stock position or political factors. However, the situation occurs in common is the price of product influenced by both market factors and cost factors.

Raw material product as grains are traded in a relatively free market, thus the purchase price strongly depends on market condition at a given point in time. (Weele 2010, 348-349.)

Beyond doubt that purchasing price is always sensitive for buyers. Buying organization normally is concerned with how much money can be saved during purchasing. Thus, it requires purchaser to research supply market to acquire a clear picture continuously because changes can happen anytime. Understanding supply market can help purchaser to know where and when to start purchase activity is the best. However, material price in some sense is associated with the role of buying organization in supplier's view, typically, whether or not the commercial relationship between buying organization and supplier is one-off business or continuous trade in long time. (Wei, 2007, 73&102.)

Evaluation criteria of international suppliers should be equal to domestic suppliers when purchase from foreign countries. Payment currency should be agreed by both parties. However, there is a risk of purchase price associated with foreign trade which is the uncertainty of exchange rate because it changes all the time. Moreover, the problems of longer lead time and transportation process need to be considered comprehensively with purchase price. (Wei 2007,69.)

4.2 Quality

No enterprise can survive in market in long term if ignores product quality. Right quantity of material ensures production efficiency. It ensures that product can be finalized and delivered to customer as promised time, which is important for customers' satisfaction.

By contrast, rework frequency caused by poor quality brings about administrative cost increase. The worse situation would make enterprise remake production plan. That will generate much more unexpected cost and time wasted. Moreover, low quality material leads defective rate increase. That would occur that buyer organization postpones delivery time to its customers. That is a serious risk because the reputation of enterprise will suffer, or even worse, enterprise will lose current and potential customers. (Zhou 2009, 136.)

The quality management controlling process, system and principles is a key evaluation element to supplier. The purchaser company need to assess obvious issues such as management responsibility, defective rate, process controlling, but also invisible issues, such as evaluate security, training and equipments. Many purchasers expect to cooperate with the supplier who has received ISO 9000 certification as assurance of their product quality. (Moncka,R., Trent,R., Handfied,R. 2008. 179)

4.3 Delivery performance

If material does not receive on time from supplier, production line cannot operate as planned schedule. This situation will generate unexpected cost, and organization will miss its promise to customer because of production schedule delay, or a large amount of specified fine must be paid to customer due to default.

The result affects customer churn rate seriously if happened more. The reputation of buyer's enterprise will suffer. However, if the material is delivered too early, it would result in waste of inventory space, deterioration of material and massive working funds would piled up there, which generates low efficient of money utilization. Thus,

when consider which suppliers can cooperate, the term of delivery performance is always a crucial measurement. It includes an expectation of buyer that supplier could meet buyer's requirements of delivery, to the right location with required quantity. (Zhou 2009,139.)

4.4 Financial stability

As mentioned a little last chapter, many purchasers takes financial evaluation as the basic condition to sift suppliers. Choosing supplier with weak financial situation would bring about many risks. First, supplier might close down. Then, weak financial supplier may lack resource to re-invest its factory, equipment and research, which are necessary conditions to improve others performance (such as quality, technology). Besides, supplier of weak finance would be strongly dependent on buyers' payments, in that case the buyer enterprise would not get a good or reasonable payment time.

It is possible that some potential problems exist in those suppliers: whether the reason of weak financial comes from low quality of product, delivery performance, frivolous spending of management or those suppliers saddle too much debt. (Sun 2011, 244.)

However, there exists another possibility that buyer enterprise may cooperate with a supplier with weak financial situation if they can provide a creative material which can lead a new market. If the supplier is a public company, its financial ratios will publish on internet, such as the company homepage or financial site. (Fogg 2008, 149.)

4.5 Production and technical capacity

The production capacity needs to be confirmed whether the supplier is able to provide sufficient product for purchaser or not. Through technical equipment is an indicator of production capacity of suppliers. Additionally, technology of supplier also tells its position market place.

It is possible that both parties establish a strategic relationship in future, thus purchaser need to be familiar with investment and strategic plan of suppliers. Moreover, enterprise may participate in development plan of suppliers that may create an innovative product and explore a new market. (Moncka,R., Trent,R., Handfied,R. 2008, 154.)

In summarized, it is no doubt that normally a large amount of suppliers is willing to compete to meet the buyer's demand, but the reality is usually different. The reasons contain three aspects. First, the buyer's demand is hard to meet from supplier, so few suppliers are capable to satisfy. Secondly, the mergers and takeover continue to increase in many industries, there is a phenomenon that those companies are less enthusiasm to pursue business actively. And the last reason is that there exists a gap between developing demand of buying organization and proaction awareness of suppliers, which lead buying organization to actively source suppliers globally. (Bialy, Farmer, Crocker, Jessop&Jones.2008,204.)

Thus, the international procurement has been increasing frequency in business today. In order word, it is import, to purchase product or service from another country if it is required by organization. In macro-economic aspects, each country has its own advantage to produce goods with higher efficiency. Different countries have different advantage goods. Through trades, countries can exchange these goods to each other in order to bring greater benefit mutually. Thus, It necessary that buyer company search suppliers in domestic as well as abroad to meet its demands of developing strategy and satisfy complex and new requirements of customers.(Bialy, Farmer, Crocker, Jessop & Jones, 2008, 313-314.)

5 SURVEY RESULT

5.1 Research implementation

I did the research to Mingsui because I did my last internship in Xiamen. Somewhat accidently, I visited Mingsui Company and had a nice talk with a manager there. At

that time, they did not have a defined concept of evaluation and selection supplier however they know the importance of suppliers definitely. Thus, when I asked for permission whether I could do my thesis research for Mingsui Company, they were welcomed me so warmly.

I first contacted the president of Mingsui. He thought it was a good idea and he allowed me to conduct survey. Next step was to make the survey, after following the comments from my supervisor, the final version was agreed. Then, I called the president trying to make appointment with him for interview. After interview, during the time of writing this thesis, they agreed me that if had other new questions, I could call purchaser manager or him on weekdays. Before the interview, I called purchaser managers in Mingsui to collect necessary data for the thesis. There are seven staffs working in purchase department and they have different roles there. I contacted three of them and they were patient and polite. The interview with president was about 2 hours. I asked the questions on survey one by one.

5.2 Present situation

The main market of Mingsui spreads in Guangdong, Shangdong, Jiangsu, Beijing and Tianjing of China. Mingsui has its own subsidiaries in Beijing, Dalian, Guangzhou and Nantong. Mingsui has been investing some supplier to build their logistic distribution center in major grain production and sale areas, which are responsible for import, storage and transport for domestic sale channels.

There are 17 key current suppliers in list of Mingsui, 6 wheat suppliers from Anhui, Henan and American, 4 maize suppliers from Shangdong and Fujian and 7 rice suppliers from Anhui, Jiangxi and Inner Mongolia. Mingsui is planning to search new wheat and rice suppliers in domestic and abroad to meet the increasing of diversified customer demand, especially wheat for flour factory. Recent years, the demand of higher quality flours has been increasing in the Southern China, due to the purchasing behavior of consuming flour tends from all-purpose flour to different kinds of flour there.

5.3 Mingsui evaluation and selection process

The *evaluation and selection of current supplier process* in Mingsui includes three main steps: First, according to record sheet, evaluate performance of suppliers every month. It aims to understand how well those suppliers performance. Thus, based on the information, purchasers can communicate with suppliers who are relative performance weaker to expect them to improve. Besides, find out who perform well then mark them into good supplier list. The record sheet helps Mingsui to control potential risks from current suppliers and find out who has sufficient supply ability for Mingsui. The sheets have different topics of evaluation, for example, quality performance, on-time delivery rate, acceptance rate of order, price level, and payment method and so on.

Second, Mingsui ranks the current suppliers according to their performances. That give a picture to Mingsui what are the good suppliers now and what suppliers could have business risks if would purchase from them in future. As Mingsui said normally it is analyzed one or twice a year.

The last step is to determinate who are the eligible suppliers so that Mingsui can continue to cooperate with them and weed out incompetent suppliers.

As for potential suppliers, most information is introduced by experienced purchasers and business relationship in Mingsui .They consider that is more reliable and time-saving. The purchasers of Mingsui attend various exhibitions about grain product as well. In those exhibitions, Mingsui can market itself and collects new potential supplier's information there. Moreover, for some critical products, they will make effort to source and evaluate potential suppliers by sending inquiry and question, negotiating or making business field trips in future.

5.4 Criteria to evaluate supplier in Mingsui

As the reply from Mingsui, the criteria they are most concerned are three main areas: price, delivery time and quality.

It is no doubt that with a good quality and lower price can get more market share because it is a strong competitive advantage. Mingsui requires their supplier should pass the ISO9001 (Quality management system certification, international) and ISO22000 standard (Food safety management system certification, international) or GB/T19001 (Quality management systems Requirements, Chinese) and GB/T22000 certification (Food safety management system Requirements, Chinese), which is also its customer required.

Besides, Mingsui is emphasized on delivery performance very much. First reason is it shows the capability of supplier. Good capability can contribute its products be delivered with required quantity and high qualified rate. Another reason is because that not all sale areas of Mingsui have its own inventories. Thus, that needs suppliers to provide products on time so that Mingsui can keep its promises to customers.

As for increasing demand of wheat, Mingsui requires to search potential suppliers to improve its supply capacity to its customers. Besides, price and quality, Mingsui attaches importance on size of potential suppliers company, what customer they are serving. From this information, Mingsui can have a preliminary idea about how the supplier supply capacity is. Then, purchasers of Mingsui will make a field trip to potential supplier to verify whether the reply from supplier is true.

However, in practice, it is not an easy thing to change current suppliers immediately to better new suppliers. It contains transfer cost and risk, especially the human relationship makes it harder. However, it indicates again the importance of select a right supplier at beginning.

5.5 Summary of survey

I collected the answers from purchasers and president. The company has its own plan for supplier evaluation and selection. Mostly it is based on experiences and human relationships accumulated. Mingsui has caught many core issues of the process. For example, evaluate key criteria, verify suppliers, source globally, find new suppliers

for new market and establish stable relationship with current qualified suppliers. However, in the supplier evaluation and selection process, the company neglects some important steps though Mingsui knows they are vital in deed. The fact is that Mingsui does not put them into the process.

For sourcing potential suppliers, the company can be more proactive in case of current supplier would not be capable for Mingsui to meet new requirements. The channels from sourcing potential supply market are diverse as introduced in details at chapter 3.3.4.

From the new demand of customers, the wheat for different kinds of flours becomes critical product in Mingsui. To respond the demand well, Mingsui will make more effort to search appropriate suppliers and plan to establish long relationship with them. As mentioned before, the supplier evaluation and selection process is time and money consumed. It will take much resource to source and verify suppliers. However, if would cooperate with good suppliers whom can support the company well, everything is worth. For future development of case company, it is possible to try to set firmer relationship with new wheat suppliers, for example, invests on new wheat product research with potential wheat suppliers.

6 RECOMMENDATIONS

6.1 Problem areas

Evaluation and selection process

As the data collected in Mingsui, it is not difficult to find that the process of Mingsui stressed much more on investigating supplier than recognizing its necessary and when to be proactive to evaluate potential suppliers. The evaluation and selection supplier process in Mingsui is too independence to put other important considerations at beginning, such as: when source new suppliers, what the key sourcing requirements ,

what the procurement strategy is by integrating whole Mingsui development strategy and where the potential supply source is.

Current suppliers

There exists a problem that Mingsui relies on its current suppliers a lot to meet its most requirements of demand. It is true that in that case Mingsui needs not to afford extra cost for sourcing new suppliers and avoid uncertainty risks. However, for long time development it is not a good idea. The grain market is relative large and free market. The supply and demand relationship changes frequently. The price purchased from current suppliers may not the best owing to different enterprise have their own different situations and development plans. Thus, Mingsui may increase the frequency to search potential suppliers and choose competent suppliers in advance. Besides, current supplier may not satisfy all Mingsui's new demands in the future. Be proactive to source new suppliers can faster response customers when new requirements coming. Not until realize that the current supplier cannot satisfy Mingsui's new demands.

Audit group

The cost during searching suppliers is inevitable. The audit can be combined from different departments that can bring out comprehensive suggestions in different fields. Thus the task of evaluating who is the right suppliers is not only on belonging to purchase department because that may occur one-sidedness evaluation result. For example, customer service department and marketing department have high agilities what is happening now and what could happen in future in market. However, purchase department prefer to concern on how much price can be reduced, how long the delivery time is, what best performance suppliers are. Sometimes they ignore what happened in the market, even have no idea what the potential demand from customers would be. In that case, Mingsui would not make proactive to give quick response to potential market.

Thus, Mingsui may set audit group about 2-4 staffs (limited by budget) from different departments. It must be better than all staffs from purchase department. Furthermore, realizing the information share internally can raise efficiency to target good suppliers.

Financial investment

Mingsui has established its own inventories in many main sale areas, and has invested its suppliers' stock. It is good way to build long relationship and mutual trust. Through investment, Mingsui would become the most important customer for these suppliers and increase material availability from them.

Nevertheless, there has risk of slow-moving inventory of unmarketable product. The loss is not only from grain, but also all the cost of maintenance inventories plus debt interests of banks. Stock services may be outsourced by third parties, or pay stock rent to suppliers who have storage service. That would be the best way to select a supplier who can delivery product on time with stable price. Thus, the company can take more concentrate on core product investment.

6.2 Scored card

Matrix for supplier evaluation				
Evaluation Criteria:	Weight	Score(1-5)	Weighted Score	
Quality system	20			
Quality guarantee certification	5	4	4	17.4
Qualified rate of delivery	8	4	6.4	
Quality process control	7	5	7	
Delivery	20			
The timeliness of delivery	X			
Respon capable of order amount change	X			
Elasticity of supply	X			
Delivery arrangement follow the customer plan	X			
Duration of lead time	X			
Financial Situation	20			
Debt ratio	X			
Profitability ratio	X			
Operation ratio	X			
Liquidity ratio	X			
Price	11			
Preferential price degree	4	3	2.4	5.8 (53%)
The capacity to absorb the price hikes	4	2	1.6	
The space of cost reduce	3	3	1.8	
Technical ability	10			
Product creativity	X			
Process creativity	X			
Development and research	X			
Service	12			
Deal with customer complaints responsibly and quickly	X			
Grain processing and packaging technology	X			
Handling capacity of emergency order	X			
Experience	7			
The length of supplier operation	X			
The length of cooperation with us	X			
	Total Weighted Score		XXX	

Open Questions (if any):

Step 1: Fill the evaluation criteria as Mingsui requirements

Step 2: Allot the weight to each criteria category and identify sub-criteria's weight below it.

Step 3: Give the score after investigating by the 5-point scale.
(1.Worse 2. Bad 3.OK 4.Good 5. Excellent)

Step 4: According the weight and score result, count the weight score then figure out the total weighted score for each supplier.

Figure 5. Matrix for supplier evaluation

By integrating the theoretical knowledge and practical result, I made this Matrix for supplier evaluation (Figure 5). The matrix form contains seven main criteria. Under each main criteria, there are several sub-criteria. The main elements of evaluation are: quality system, delivery, financial situation, price, technical ability, service and experience.

Mingsui takes the price, delivery performance and quality as the most vital elements to investigate supplier. Thus, in the matrix form, total of the three elements occupies 51% weighted share (20+20+11=51). The reason I set the criteria of price with

weighted number 11 because that the grain prices are marketed- based. So it is change frequency. If the purchasers would understand information of supply market well, it would not be difficult to know what the advantage prices are. Thus, the rest things are to compare offered prices of suppliers in the list, analyze other issues concerning about prices, such as what I filled in the form: the capacity to absorb the price hikes, or the space of cost reducing.

To understand an enterprise situation of finance, the fast and direct way is to analyze its financial statement or data. Those information can be gained by searching from internet, or require suppliers to provide. The technical ability can show the capability of the company and its position in market. Service provided by suppliers may create add-value for Mingsui so that Mingsui can spend more resource on strategic product. As for the experience criteria, from the years that supplier's company found and the years that Mingsui has cooperated with, can give a reference whether the supplier is reliable to develop deeper relationship if its other criteria results are acceptable.

The sub-criteria indicate what issues are needed to investigate based on the company requirements. That makes the investigation specific and meticulous. However, the main and sub-criteria are variable depending on different purchasing products and suppliers. I gave 2 group numbers as examples for case company to understand how to use and analysis the form clearly. The explanation as follows:

Step 1: Fill the main criteria and sub-criteria as requirements.

To evaluate supplier, the first step is to know what criteria is needed. As statement above, there are different criteria should take into account for Mingsui. These criteria filled illustrate what areas that company concerned.

Step 2: Allot the weight to each main criteria category as well as identify sub-criteria's weight below.

Each main element is filled by different number to distinguish relative importance compared with others. The sum of all main criteria is always equal to 1(100%). Then, purchaser must decide the sub-criteria under each main criteria. The sum of all sub-criteria must equal to the amount of its main criteria belonged.

Step 3: Give the score after investigating by the 5-point scale. (1.Worse 2.Bad 3.OK 4.Good 5.Excellent)

A vague and undefined evaluation form, the results would be widely different for same supplier by different people to assess whereas valid evaluation criteria can get similar results by different people in same supplier.

Step 4: According the weight and score result, count out the weight score then add the total score for each supplier.

For example, as the form above shows, in the main criteria of quality system:

The quality system element is weighted by 20%. The sub-criteria contain:

- Quality guarantee certification is weighted by 5. (Score is 4 in 5 point scale, equal to 80%), $80\% \times 5 = 4$. This is the lowest sub-weighted number, but it does not mean the certification is not important. The reason is if the certifications of supplier are not meeting the requirement of case company, they can provide other relevant certifications, for example: certification of *Harmless agricultural products*, *Green food*, and *Organic food* or *Environment management system*. These are acceptable by the company as well. Thus, it depends the actual situation when start to verify suppliers.
- Qualified rate of delivery is weighted by 8, (Score is 4 in 5 point scale, equal to 80%), $80\% \times 8 = 6.4$
This sub-criteria is the highest sub-weighted number in quality criteria because this issue affects the efficiency of operation very much. Besides, in the case company, the delivery performance is emphasized a lot because of limited by its stocking level.
- Quality process control is weighted by 7. (Score is 5 in 5 point scale, equal to 100%), $100\% \times 7 = 7$. Thus, the total score of quality system criteria is 17.4 ($4 + 6.4 + 7 = 17.4$) or 87 % ($17.4/20 = 87\%$).

Let us suppose that after evaluation a supplier X whose total score is 90 in the matrix form. Purchasers can compare the total scores among different suppliers provided

same product. Company can choose who gains the highest or higher score.

However, it is also possible to consider supplier with relative lower score because some main criteria of the supplier is remarkable, which could be the most important criteria of purchasing requirement in certain case. For example, the total score of supplier Y is 86 which is lower than supplier X 90. However, its score of quality criteria is 19 (95%), whereas is the score of supplier X is 17.4 (87%). Buyer might choose supplier Y though its total score is lower than supplier X. The reason could be in that case, the quality of purchasing material is the most concerned ($19 > 17.4$, $95\% > 87\%$).

Additionally, another phenomenon which is worth to emphasis is the low score of some main element. For instance, in the matrix form, the score of price is 5.8(53%), which is not a good result. In that case, purchaser needs to consider whether the weakness can be improved or whether the supplier lacks some capability to make it happen.

To define weakness of supplier in evaluation and selection process is important so that Mingsui need to estimate how many risks from these weaknesses would be. This aims to make a rational and objective select decision. It is worth to mention that, when potential suppliers become to current suppliers, evaluation of their performance definitely needs to continue.

6.3 Summary of recommendation

From the statement of theoretical knowledge, it illustrates that the supplier evaluation and selection process is critical activity in procurement department. It is not independent activity in value chain but a profitable activity of company. Thus, setting a reasonable and comprehensive process can contribute to find good suppliers as well as realize company future development.

Especially for this research, the company needs to improve the awareness of recognizing when it is necessary to select new suppliers. And be more proactive to search potential suppliers in different ways. That is beneficial to seize new market opportunity.

So to say, the supplier evaluation and selection process is associated with company objectives closely.

However, everything has two sides. It means that each business decision has its risks and benefits. It requires a mature and able manager to balance potential risks and estimated benefits, minimize the potential problems and prepare solutions in business. For example, the price of grain is market-based, the company buys grain products in lower prices and sales them in reasonable higher prices to get profits. One of potential risks is if purchase too much and save them in stocks, after half a year, the products would not be marketable. Even the price would be much lower than purchased before. The loss would be double.

Mingsui is still a young company, the investment spending on inventory infrastructure could be reduced, and transfer more fund to invest potential marketable grain products. As the new demand in southern of China, now it is a good opportunity to develop relationship with potential qualified suppliers. The stock service could be one of key evaluation criteria of new supplier so that Mingsui would use more fund to purchase or invest marketable grain products. For example, owing to the increasing number of food safety problems in China, a company who has high capability of providing safety or green food with lower price, it is no doubt that the company would be a huge hit with its current even potential customers. The most valuable is that the company would be distinguished with its competitors by customers, which would win more competitive advantage. However, all of this is based on good suppliers' support.

7 CONCLUSION

In china, supplier management is developing at the very beginning stage, especially in many small and medium companies. One of common problems is supplier evaluation and selection process, the subjective decision is more than objective assessment. One obvious reason is the hierarchy in company, which the centralization of decision making power impedes a comprehensive and objective assessment.

Establishing a supplier evaluation and selection process is the base of finding good suppliers. The criteria of evaluation are different and variable however most cases would refer on quality, price technology, and production capacity and delivery performance. The elements of evaluation need to base on the different products and services purchased which are variable.

Market demand and supply changes all the time, Mingsui can keep stable number of eligible suppliers. Adjust evaluation criteria according to actual condition. However, the situations of eligible suppliers are not always static but dynamic. Mingsui needs to continue evaluate supplier performance meanwhile research potential supply market frequency to control the market trend. Sift out unqualified and input competent suppliers.

At last, the author of the thesis states what knowledge she learned and understood for the study and analyzes collected information in practical research. Hoping the thesis can contribute supplier evaluation and selection process improvement in case company. Really appreciate that Mingsui giving me the opportunity to study. Finally, thanks my thesis supervisor a lot for her patient and kindly advices.

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STYLES USED IN THIS LAYOUT MODEL

Survey Questions

To present and purchaser in Mingsui

Mingsui basic information

1. Please introduce Mingsui company
2. About customers of Mingsui
 - (a) How many customers do you have?
 - (b) What are the business areas of these customers?

Supplier's evaluation and selection of Mingsui

General question

1. How many suppliers in Mingsui?
2. How many domestic and international suppliers? What do they provide?
3. How does Mingsui evaluate and selection suppliers?

Deep question

Supplier evaluation and selection

1. What are the most important criteria that Mingsui concerned? (Price, delivery, place...)
2. What is the expectation for suppliers ?(current and potential)

Financial

1. Does Mingsui concern about financial situation of suppliers? Why?
2. If had, how does Mingsui collect and analysis the finance information?

Quality

1. What is the quality requirement for supplier?
2. What are the certifications or documents that suppliers need to submit?

Performance assessment

Does Mingsui assessment performance of suppliers regularly?

If does, what are the aspects to check?

American supplier

Why chose American supplier?

- (a) the advantages compared with domestic suppliers
- (b) or customer requirement

Cost structure

1. Has Mingsui evaluated cost structure of its suppliers? If had, how to evaluate it?
2. Except cost structure, are there other ways to estimate purchase price to ensure the price is appropriate?

Future development

1. Is there a development plan for Mingsui in future?
2. For the plan, what aspects would need supplier support?